Amendments to the Specification

Please replace paragraph [0045] with the following amended paragraph:

[0045] The preferred implementation for input member acceleration Ni dot is to provide a desired rate of change of transmission input speed, Ni dot des, for Ni dot. Given a desired transmission input speed, Ni des, a transmission input speed trajectory is determined, called an input speed profile, Ni prof. Desired input speed is provided by the system controller, for example in accordance with a desired operating point of the engine to meet various efficiency and emission objectives. A preferred method of determining input speed is disclosed in commonly assigned and co-pending United States Serial Numbers 10/686,508 40/-(Attorney Docket Number GP 304193) and 10/686,034 10/ (Attorney Docket Number GP 304194) which are incorporated herein by reference. The method by which Ni prof is determined is shown in Figure 5. The present value of the trajectory, Ni prof is subtracted from the desired speed, Ni des to obtain an input speed profile error, Ni_prof_err. This error is then used in a lookup table to determine the allowable rate of change for the input speed profile. Ni prof rate limit. The values used within the lookup table are empirically determined based upon objective and subjective criteria such as system responsiveness capability, noise and vibration due to changes in engine operating speed, vehicle stability, and effects on engine operating characteristics such as fuel economy and emissions that may be related to the change rate of engine operation. In general, it is desirable to allow a higher rate of change, Ni prof rate limit, for a larger error, Ni_prof_err. Then the present value of the profile, Ni prof, the desired final value of the profile, Ni des, and the allowable rate of change. Ni_prof_rate_limit, are inputs to a rate limiter. This rate limiter allows the value of the profile, Ni prof, to be modified in the direction of the final value, Ni des, at a rate that is no faster than the rate limit, Ni prof rate limit, until the profile, Ni prof. becomes equal to the desired value, Ni_des. The derivative with respect to time of

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Ni_prof is then taken to determine the desired rate of change of transmission input speed, Ni_dot_des. Through Ni_dot, Ta and Tb are calculated in such a manner as to cause transmission input speed to change at a desired rate, Ni_dot_des.

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